

Membrane press



Use and maintenance manual



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SAFETY WARNINGS

The indications which, if not followed carefully, could lead to causing damage to the machine or to the people involved, are always highlighted and preceded, in this publication, by the words:

 **ATTENTION !!!**

Whenever you find this wording, you must scrupulously follow what is indicated.

 **ATTENTION !!!**

Read the operating instructions carefully before installing and starting the machine.

Keep the manual for future reference.

For any communication, always indicate the machine model and serial number.

For any doubt or use not foreseen in this manual, contact the manufacturer.

This machine has been designed for safe use, but the operator must exercise caution when using the various functions. During each use of the machine, always pay attention to the following safety regulations:

 **ATTENTION !!!**

- Never place any object on the machine.

- Never tamper with the safety devices.

- Do not neutralize or modify the protections.

- Do not use the machine without first blocking the wheels.

- Any repair, modification and/or maintenance on the machine must be authorized by manufacturing company.

 **ATTENTION !!!**

The manufacturer will not be held responsible for inconveniences, breakages or accidents due to failure to respect or apply the instructions contained in this user manual.

PACKAGING, TRANSPORT, DELIVERY AND HANDLING

Packaging

Packaging is generally not necessary and, if necessary, is supplied directly by the manufacturing company

The total weight of the packaged machine is approximately 240 kg.

Transport

During transport the machine must be protected from atmospheric agents. It must not be turned upside down and must be protected from any impact. Pay attention and respect any instructions on the packaging. The goods travel under the responsibility of the carrier.

Delivery

The customer is required to check the goods at the time of delivery.

 **ATTENTION !!!**

At the time of delivery, carry out a careful preventive check in order to identify and report any damage suffered during transport operations and, if necessary, note it in the DDT, under penalty of losing any right to any compensation for damages from the carrier

Handling Maximum

caution must be taken during unloading and positioning of the press to avoid sudden or violent maneuvers. For handling, use a suitable forklift.

 **ATTENTION !!!**

A big impact or a strong lateral push could overturn the machine: handle it with caution.



DESCRIPTION AND OPERATION

This press for grapes and fruit generally consists of a perforated stainless steel tank, mounted on a frame equipped with wheels, which has two sliding doors with handles for loading and unloading and a reinforcement ring. An elastic tubular membrane is mounted inside the tank. A gear motor system allows the rotation of the tank. The pneumatic system for operating the press consists of a quick coupling for an external compressor, a manually operated valve to deflate the membrane, a manual joystick to inflate the membrane and a pressure gauge. A basin sliding on guides, placed under the tank, collects the juice extracted by the pressing action. Finally, a safety valve, located on the bottom of the tank and accessible by removing the rear plastic casing, guarantees the automatic discharge of any overpressures.

After manually opening the sliding doors, the press tank is filled with crushed, whole or destemmed grapes or fruit. The doors are then closed and the operator, by activating the appropriate valves, begins to inflate and deflate the membrane following a work program as will be described in the Start-up and Testing section. The membrane, inflating, crushes the product against the perforated wall of the tank and the juice contained in the grapes or fruit, due to the pressure, comes out and is collected in the tank below. Once the work cycle is completed, the pressure is brought back to zero, the juice collection tank is removed, the door is opened, containers are positioned under the press to collect the pomace and the tank is rotated until it is completely empty. . After thorough washing, the machine is ready to process another product by repeating the cycle described above.

TECHNICAL FEATURES

Tank volume	450 liters approximately.
Bathtub connection	Garolla 40 or other on request
Dimensions and weight without packaging	1850 x 950 xh 1350 mm. - approx. 240 Kg. With
Recommended compressor type	50 liter tank at 8 bar - 2 HP. 1 bar
Maximum operating pressure	
Power (ONLY FOR MOTORIZED VERSION)	0.55 kW - 220V; 0.55 kW - 220V MF 60 Hz

RESIDUAL RISKS

By residual risk we mean a potential danger, impossible to eliminate or partially eliminated, which could cause damage to the operator or to the machine if he intervenes with methods and practices of incorrect work.



ATTENTION !!!

Always take into consideration and keep in mind the following as incorrect conduct by the operator can cause serious damage to people or things.

Risks due to handling of the machine During handling, carry out safe maneuvers, wearing standard footwear to avoid any risk of crushing. Always keep your feet and body away from the machine.

Risks due to dragging While the machine is operating, the tank must be rotated. Avoid approaching with rags, clothing or body parts that could get stuck, crushed or dragged.

Risks due to overpressure An incorrect maneuver when putting pressure on the diaphragm could cause risks of explosion. Always position the press door downwards before applying pressure and never exceed the recommended pressures regardless of the operation of the safety valve.

Risk of explosion Improper use of this machine can create a risk of explosion. Always follow the instructions, especially regarding the creation of the air circuit and the working pressures.



INSTALLATION, PNEUMATIC AND ELECTRICAL CONNECTION

Place the machine on a floor or in any case on a solid and flat surface. Before each use, make sure you have activated the two wheel locking brakes located on two opposite corners of the machine.

ATTENTION !!!

All connections to the machine must be made by qualified personnel and in compliance with the provisions in force on the matter.

Connect the machine to an air compressor by connecting to the quick socket located on the front right side of the machine. Use a tube diam. 8. The machine is equipped with a safety valve calibrated at 1.2 bar which however begins to open at 1 bar. At the end of each harvest and before starting the next one, check the correct functioning of the safety valve. Do not carry out adjustments or tampering without this being done by qualified personnel. In order to keep the machine efficient and safe, we recommend adhering to the preventive maintenance program by completing and returning the attached membership form.

Connect the machine to the electricity supply by fitting a 220V industrial plug on the cable provided.

ATTENTION !!!

Carefully follow the above instructions as a poorly executed circuit and incorrect maintenance could cause serious damage to people or property.

START-UP AND TESTING

ATTENTION !!!

During the machine operation phase, make sure that all the crankcases and pipes are firmly locked in their housings. When carrying out the various work operations, always use protective gloves.

Filling the press

Make sure valve 1 is in the vertical position on PRESSURE and joystick 2 in the central neutral position. Rotate the tank by operating switch 3. Place the tank with the door at the top.

Open the doors by sliding them towards the bottom of the tank. Place valve 1 horizontally on EMPTY and joystick 2 at the bottom to EMPTY. Make sure that the membrane assumes the fully retracted position on the support tubes inside it.

Once the membrane is completely resting on the pipes, place valve 1 horizontally on PRESSURE and joystick 2 in the central neutral position.

Make sure the wort tank is correctly positioned and locked in place.

Connect the wort suction pump to the wort tank fitting. Begin loading the product to be pressed. In this phase must begins to come out of the press, therefore it is necessary to activate the extraction pump every time the collection tank fills.

When the machine is full, clean the guides on which the doors slide, then close the doors by sliding them towards the center of the tank.

ATTENTION !!!

When carrying out this manoeuvre, ensure correct closure as indicated above since incorrect closure could cause serious damage to people or things.

Make the tank make two or three turns to drain as best as possible all the juice that is still dispersed in the mass.

ATTENTION !!!

Scrupulously respect this position of the doors before each phase of putting the machine under pressure membrane since an incorrect position could cause serious damage to people or things.



⚠ ATTENTION !!!

Each phase described below must be carried out under the watchful control of the operator since false maneuvers could cause serious damage to people or things. NEVER exceed the pressures indicated in the various phases.

Pressing cycle It is

recommended to respect the work sequences indicated to obtain the best possible result.

When carrying out the various phases, do not be in a hurry to apply high pressures as this, rather than speeding up the times, lengthens them. During the pressing cycle, when you see the need, start the pump extraction of the must from the collection tank.



Step 1

Hold valve 1 vertically on PRESSURE and position joystick 2 up towards PRESSURE.

During this phase, it may be advantageous to keep the tank rotating. Checking the pressure gauge, increase the pressure to 0.2 bar then immediately put joystick 2 in the central neutral position.

Hold the press in this position for 2-3 minutes.

Position valve 2 horizontally on EMPTY and joystick 2 downwards towards EMPTY, lower the pressure gauge to 1-2 mm. under the 0 notch then quickly close valve 1 first by positioning it vertically on PRESSURE and then joystick 1 in the central neutral position.

Give the tank 1-3 turns. Lock the tank in place with the doors down.

Phase

2 Repeat phase 1 exactly with the warning that during the pressure rise phase, when joystick 2 is positioned on PRESSURE, it may be advantageous to keep the tank rotating.

Step 3

Hold valve 1 vertically on PRESSURE and position joystick 2 up towards PRESSURE.

During this phase, it may be advantageous to keep the tank rotating. Checking the pressure gauge, increase the pressure to 0.4 bar then immediately put joystick 2 in the central neutral position.

Hold the press in this position for 2-3 minutes.

Position valve 2 horizontally on EMPTY and joystick 2 downwards towards EMPTY, lower the pressure gauge to 1-2 mm. under the 0 notch then quickly close valve 1 first by positioning it vertically on PRESSURE and joystick 1 in the central neutral position.

Give the tank 1-3 turns. Lock the tank in place with the doors down.

Step 4

Hold valve 1 vertically on PRESSURE and position joystick 2 up towards PRESSURE.

During this phase, it may be advantageous to keep the tank rotating. Checking the pressure gauge, increase the pressure to 0.6 bar then immediately put joystick 2 in the central neutral position.

Hold the press in this position for 2-3 minutes.



Position valve 2 horizontally on EMPTY and joystick 2 downwards towards EMPTY, lower the pressure gauge to 1-2 mm. under the 0 notch then quickly close valve 1 first by positioning it vertically on PRESSURE and joystick 1 in the central neutral position.

Give the tank 1-3 turns. Lock the tank in place with the doors down.

Step 5

Hold valve 1 vertically on PRESSURE and position joystick 2 up towards PRESSURE.

During this phase, it may be advantageous to keep the tank rotating. Checking the pressure gauge, increase the pressure to 0.8 bar then immediately put joystick 2 in the central neutral position.

Hold the press in this position for 2-3 minutes.

Position valve 2 horizontally on EMPTY and joystick 2 downwards towards EMPTY, lower the pressure gauge to 1-2 mm. under the 0 notch then quickly close valve 1 first by positioning it vertically on PRESSURE and joystick 1 in the central neutral position.

Give the tank 1-3 turns. Lock the tank in place with the doors down.

Step 6

Hold valve 1 vertically on PRESSURE and position joystick 2 up towards PRESSURE.

During this phase, it may be advantageous to keep the tank rotating. Checking the pressure gauge, increase the pressure to 1 bar then immediately put joystick 2 in the central neutral position.

Hold the press in this position for 2-3 minutes.

Position valve 2 horizontally on EMPTY and joystick 2 downwards towards EMPTY, lower the pressure gauge to 1-2 mm. under the 0 notch then quickly close valve 1 first by positioning it vertically on PRESSURE and joystick 1 in the central neutral position.

Give the tank 1-3 turns. Lock the tank in place with the doors down.

At this point the pressing is over. The membrane is in vacuum. Rotate the press and lock it with the door in the upper position. Open the doors. Empty the must tank, remove it until the side rests on the ground and wash it. Place a container for the pomace under the doors. Start rotating the tank until the marc is completely empty. At the end, wash everything well, taking care to eliminate any skins and seeds on the door guides.

ATTENTION !!!

If you use a pressure lance, do not get too close to the membrane to avoid the risk of damaging it.

MAINTENANCE AND CLEANING

Chain

At the beginning of the season and whenever necessary, grease the chain with Vaseline grease. If necessary, adjust the tension by repositioning the pinion support.

Diaphragm

During periods in which the machine is not used, the membrane should not be kept too inflated or under vacuum. Inflate it slightly until it assumes a position that rests slightly on the central tubes.

Avoid washing with products that are too alkaline.

Safety valve Make

sure it is clean and that there are no foreign bodies blocking its operation.



FAULTS AND FAILURES

 ATTENTION !!!

Incorrect use or use different from that intended can determine the "critical state of the machine" and cause both damage to the same and constitute a danger for the operators and maintenance workers forced to intervene.

Symptom	Cause	Intervention
The membrane does not swell	The membrane is perforated	1. Attempt a repair 2. Replace the diaphragm

SPARE PARTS

No spare parts are supplied with the machine.

 ATTENTION !!!

Spare parts must be requested from the supplier since non-original spare parts do not guarantee the perfect functioning and safety of the machine.

Any repair and/or maintenance work on the machine must be authorized by the manufacturer and carried out by qualified personnel.